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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D	13 MAY 2005
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Applicant's or agent's file reference X16760	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/US04/15786	International filing date (day/month/year) 20 May 2004 (20.05.2004)	Priority date (day/month/year) 20 May 2003 (20.05.2003)
International Patent Classification (IPC) or national classification and IPC IPC(7): A61K 39/395; C07K 16/28, 16/30 and US CL: 424/133.1, 144.1, 153.1, 155.1, 173.1, 174.1; 530/387.3, 388.22, 388.73, 388.8A		
Applicant APPLIED MOLECULAR EVOLUTION		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. (sent to the applicant and to the International Bureau) a total of ___ sheets, as follows:

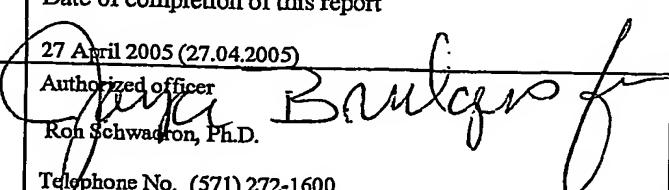
sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) ___ , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input checked="" type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application

Date of submission of the demand 14 March 2005 (14.03.2005)	Date of completion of this report 27 April 2005 (27.04.2005)
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer  Ron Schwadron, Ph.D. Telephone No. (571) 272-1600

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/US04/15786

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

- international search (under Rules 12.3 and 23.1(b))
- publication of the international application (under Rule 12.4)
- international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

the international application as originally filed/furnished

the description:
pages 1-58 as originally filed/furnished
pages* NONE received by this Authority on _____
pages* NONE received by this Authority on _____

the claims:
pages 59-63 as originally filed/furnished
pages* NONE as amended (together with any statement) under Article 19
pages* NONE received by this Authority on _____
pages* NONE received by this Authority on _____

the drawings:
pages 1-17 as originally filed/furnished
pages* NONE received by this Authority on _____
pages* NONE received by this Authority on _____

a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. The amendments have resulted in the cancellation of:

- the description, pages _____
- the claims, Nos. _____
- the drawings, sheets/figs _____
- the sequence listing (specify): _____
- any table(s) related to the sequence listing (specify): _____

4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- the description, pages _____
- the claims, Nos. _____
- the drawings, sheets/figs _____
- the sequence listing (specify): _____
- any table(s) related to the sequence listing (specify): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

the entire international application
 claims Nos. Claims 11-24,32 were not searched because the claims recite sequences and no CFR

because:

the said international application, or the said claim Nos. _____ relate to the following subject matter which does not require an international preliminary examination (*specify*):

the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _____ are so unclear that no meaningful opinion could be formed (*specify*):

the claims, or said claims Nos. 11-24, 32 were not searched due to a lack of a CFR for the s are so inadequately supported by the description that no meaningful opinion could be formed.
 no international search report has been established for said claims Nos. 11-24, 32

the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form

has not been furnished

does not comply with the standard

the computer readable form

has not been furnished

does not comply with the standard

the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

See Supplemental Box for further details.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/US04/15786

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>1-10, 25-31, 33</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-10, 25-31, 33</u>	NO
Industrial Applicability (IA)	Claims <u>1-10, 25-31, 33</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and Explanations (Rule 70.7)

Claims 1-10, 25-31 and 33 lack an inventive step under PCT Article 33(3) as being obvious over US 2002/0164326 in view of US 2002/0197256.

US 2002/0164326 discloses high affinity antibodies with the properties recited in claims 1-4 (see abstract and page 12, sections [0121] and [0125]). US 2002/0164326 discloses that such antibodies can be made against cancer cell antigens (see page 5, section [0064]). US 2002/0164326 discloses that antibodies would contain a light and heavy chain with human framework regions (see page 6, [0066]). The human framework region can be derived from a consensus sequence which would encompass human germline framework regions. US 2002/0197256 discloses antiCD20 antibodies and the use of such antibodies to treat human cancer (see page 2, [0010]). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have created the claimed invention because US 2002/0164326 discloses high affinity antibodies with the properties recited in claims 1-4 and that such antibodies can be made against cancer cell antigens whilst US 2002/0197256 discloses antiCD20 antibodies and the use of such antibodies to treat human cancer. One of ordinary skill in the art would have been motivated to make such antibodies because US 2002/0164326 teaches the advantages of high affinity antibodies (page 1, [0011]).